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APPLICANT : HITACHI METALS LTD;

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TITLE : ANTIOXIDANT

ABSTRACT : PROBLEM TO BE SOLVED: To obtain an antioxidant capable of exhibiting excellent antioxidation effects in a wide temperature range, having high reliability, using an Fe-Ni-based alloy, by compounding an antioxidant with a specific carbide, etc.

SOLUTION: This antioxidant is one for preventing the oxidation of a metal during heating and comprises at least one or more of chromium carbide, chromium silicide and titanium carbide. The antioxidant especially comprises a combination of aluminum oxide, silicon oxide and an alkali aqueous solution (preferably an aqueous solution of sodium silicate) and preferably contains chromium carbide, chromium silicate, titanium carbide, metal chromium and metal titanium. Consequently, when the antioxidant is applied to an Fe-Ni-based alloy, antioxidation effects in a wide temperature range of 500°C to 1,300°C can be increased and the yield of the Fe-Ni-based alloy material after hot working such as hot rolling can be improved.

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